

## 679-BS Bachelor of Engineering (Biomedical)Biosignals

| <b>Year and Campus:</b>                          | 2009   |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
|--|--|----------------|---------|----------------------------|----------------|----------------------|------------|--------|---------------------------|------------------------|--------|---------------------------------------|------------|--------|--|------------|--------|---------|----------------------------|----------------|--|------------|--------|--|------------|--------|--|------------|--------|---------|----------------------------|----------------|----------------------|-----------|--------|
| <b>Fees Information:</b>                         | Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>  |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| <b>Level:</b>                                    | Undergraduate  |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| <b>Duration &amp; Credit Points:</b>             |  |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| <b>Contact:</b>                                  | -  |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| <b>Course Overview:</b>                          | <p>The course structure below represents the core content for the last three years of the BE (Biomedical Engineering) degree. All students should check that they are enrolled in the subjects listed, as appropriate to the stream of Biomedical Engineering that they have selected. For further information and up-to-date course advice, students should regularly check the Faculty of Engineering web page at <a href="http://www.bme.unimelb.edu.au">http://www.bme.unimelb.edu.au</a>.</p> <p>When setting the timetable every effort will be made to avoid clashes between the times of classes associated with these sets of subjects. Students should be aware however, that if it proves to be impossible to achieve a timetable without clashes in these sets of subjects, the Faculty reserves the right to modify these course structures in order to eliminate the conflicts. Students will be advised during the enrolment period of the semester if the recommended courses need to be varied.</p>   |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| <b>Objectives:</b>                               | -  |                |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| <b>Subject Options:</b>                          | <p><b>THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008</b></p> <p>Note: Students who commenced 2nd year in 2008 who have not completed (or who have failed) the second year subjects required in this course <b>MUST</b> see a Course Adviser</p> <p><b>Third Year</b></p> <p>Subjects listed below <b>MUST</b> be taken in this approved order, regardless of semester availability.</p> <p><b>Semester 1</b></p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>436-386 Biomaterials</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>431-330 Design Laboratory</td> <td>Semester 1, Semester 2</td> <td>12.500</td> </tr> <tr> <td>431-324 Control 1 (Classical Control)</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>431-325 Stochastic Signals and Systems</td> <td>Semester 1</td> <td>12.500</td> </tr> </tbody> </table> <p><b>Semester 2</b></p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>431-335 Signal Processing 1 (Fundamentals)</td> <td>Semester 2</td> <td>12.500</td> </tr> <tr> <td>431-336 Neurons:From Action Potential to Learn'g</td> <td>Semester 2</td> <td>12.500</td> </tr> <tr> <td>436-387 Cellular &amp; Tissue Biomechanics</td> <td>Semester 2</td> <td>12.500</td> </tr> </tbody> </table> <p>Elective (12.5 points)</p> <p><b>Fourth Year</b></p> <p>Subjects listed below <b>MUST</b> be taken in this approved order, regardless of semester availability.</p> <p><b>Semester 1</b></p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>431-400 Project Work</td> <td>Year Long</td> <td>25.000</td> </tr> </tbody> </table> |                | Subject | Study Period Commencement: | Credit Points: | 436-386 Biomaterials | Semester 1 | 12.500 | 431-330 Design Laboratory | Semester 1, Semester 2 | 12.500 | 431-324 Control 1 (Classical Control) | Semester 1 | 12.500 | 431-325 Stochastic Signals and Systems | Semester 1 | 12.500 | Subject | Study Period Commencement: | Credit Points: | 431-335 Signal Processing 1 (Fundamentals) | Semester 2 | 12.500 | 431-336 Neurons:From Action Potential to Learn'g | Semester 2 | 12.500 | 436-387 Cellular & Tissue Biomechanics | Semester 2 | 12.500 | Subject | Study Period Commencement: | Credit Points: | 431-400 Project Work | Year Long | 25.000 |
| Subject  | Study Period Commencement:   | Credit Points: |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 436-386 Biomaterials                             | Semester 1   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 431-330 Design Laboratory                        | Semester 1, Semester 2   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 431-324 Control 1 (Classical Control)            | Semester 1   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 431-325 Stochastic Signals and Systems           | Semester 1   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| Subject  | Study Period Commencement:   | Credit Points: |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 431-335 Signal Processing 1 (Fundamentals)       | Semester 2   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 431-336 Neurons:From Action Potential to Learn'g | Semester 2   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 436-387 Cellular & Tissue Biomechanics           | Semester 2   | 12.500         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| Subject  | Study Period Commencement:   | Credit Points: |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |
| 431-400 Project Work                             | Year Long  | 25.000         |         |                            |                |                      |            |        |                           |                        |        |                                       |            |        |  |            |        |         |                            |                |  |            |        |  |            |        |  |            |        |         |                            |                |                      |           |        |

|   |   |                                   |                       |
|---|---|-----------------------------------|-----------------------|
|   | 431-483 Neuroimaging Methods  | Semester 1                        | 12.500                |
|   | 431-461 Signal Processing 2   | Semester 1                        | 12.500                |
|   | Elective (12.5 points)  |                                   |                       |
|   | <b>Semester 2</b>   |                                   |                       |
|   | <b>Subject</b>  | <b>Study Period Commencement:</b> | <b>Credit Points:</b> |
|   | 431-400 Project Work  | Year Long                         | 25.000                |
|   | 640-381 Principles and Applications of Sensors  | Semester 2                        | 12.500                |
|   | 421-449 Biomedical Design & Regulation  | Semester 2                        | 12.500                |
|   | 431-464 Control 2 (Advanced Control)  | Semester 2                        | 12.500                |
|   | OR  |                                   |                       |
| <b>Subject</b>                          | <b>Study Period Commencement:</b>   | <b>Credit Points:</b>             |                       |
| 431-482 Auditory Processing Prosthesis  | Semester 2  | 12.500                            |                       |
| <b>Core Participation Requirements:</b> | <p>&lt;p&gt;For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.&lt;/p&gt; &lt;p&gt;It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p> |                                   |                       |